

CLAIMS

- 1 1. A computer-implemented method for facilitating restructuring of at least some
2 software components in a collection of software components, comprising:
3 identifying at least some predetermined characteristics in at least some of the
4 software components in the collection;
5 based on the identified predetermined characteristics, listing at least some of the
6 software components in a ranked order representative of the ease or difficulty of
7 restructuring the components.
- 1 2. The method of Claim 1, wherein the predetermined characteristics include
2 programming constructs.
- 1 3. The method of Claim 2, wherein the software components are restructured for
2 use in a wide area network.
- 1 4. The method of Claim 2, wherein at least some of the programming constructs
2 are assigned respective weights representative of a relative ease or difficulty of restructuring,
3 the list being ordered based at least partially on the weights of identified programming
4 constructs.

1 5. The method of Claim 4, wherein the programming constructs are selected from
2 the group including: Terminal I/O constructs, External Flow Transfer constructs, Data I/O
3 constructs, and Computational constructs.

1 6. The method of Claim 5, wherein the Terminal I/O constructs are assigned a
2 highest weight, the Computational constructs are assigned a lowest weight, and the External
3 Flow Transfer constructs and Data I/O constructs are assigned weights therebetween.

1 7. The method of Claim 5, further comprising the act of:
2 altering the weights of the constructs based on the actual use of the constructs.

1 8. The method of Claim 5, wherein the Terminal I/O constructs are selected from
2 the group including: EXEC CICS GDS RECEIVE, ACCEPT, DISPLAY, EXEC CICS
3 HANDLE AID, EXEC CICS RECEIVE, EXEC CICS RECEIVE MAP, EXEC CICS
4 RECEIVE MAP MAPPING DEV, EXEC CICS SEND MAP, EXEC CICS SEND MAP
5 MAPPING DEV, EXEC CICS ACQUIRE TERMINAL, EXEC CICS CREATE TERMINAL,
6 EXEC CICS DISCARD TERMINAL, EXEC CICS INQUIRE TERMINAL, and EXEC CICS
7 SET TERMINAL.

1 9. The method of Claim 5, wherein the External Control Flow Transfer constructs
2 are selected from the group including: SORT, STOP, EXEC CICS ABEND, EXEC CICS
3 DUMP, EXEC CICS CHANGE TASK, EXEC CICS CONNECT, EXEC CICS SUSPEND,

4 PERFORM, EXEC CICS ISSUE ABEND, EXEC CICS ISSUE ABORT, EXEC CICS SET
5 UOW, EXEC CICS EXTRACT TCPIP, and CALL.

1 10. The method of Claim 5, wherein the Data I/O constructs are selected from the
2 group including: EXEC CICS DELETEQ TD, OPEN, READ, EXEC CICS DELETEQ TS,
3 EXEC CICS READQ TD, EXEC CICS READQ TS, EXEC CICS WRITEQ TD, EXEC
4 CICS WRITEQ TS, READ, WRITE, PUT, and GET.

1 11. The method of Claim 1, wherein the predetermined characteristics are selected
2 from the group including: constructs that include transactions with an associated terminal
3 identification, constructs that include any screen input or output, routines that use variables
4 that are not defined within the scope of a related compilation unit, and constructs that use a
5 common work area (CWA), compile units that are the target of CALL commands, exit
6 controls (XCTL), communication area (COMMAREA) Linkage CICS, compile units that do
7 not reference variables outside the scope of a related compilation unit, and compile units that
8 contain calls to message queuing (MQ) services.

1 12. The method of Claim 1, wherein the predetermined characteristics include at
2 least one inbound call or invocation.

1 13. The method of Claim 1, wherein the predetermined characteristics include at
2 least one leaf routine.

1 14. A computer system, comprising:
2 a legacy collection of software components;
3 a wide area computer network site; and
4 an ordered list of at least some of the software components, the list indicating
5 the relative ease of restructuring the components for use on the wide area computer
6 network site.

1 15. The system of Claim 14, wherein the list is generated by a method comprising
2 the acts of:

3 identifying at least some predetermined characteristics in at least some of the software
4 components in the legacy collection;

5 based on identified predetermined characteristics, listing at least some of the software
6 components in a ranked order representative of the ease or difficulty of restructuring the
7 components for use in the wide area computer network.

1 16. The system of Claim 15, wherein the predetermined characteristics include
2 programming constructs.

1 17. The system of Claim 15, wherein the wide area computer network is the World
2 Wide Web.

1 18. The system of Claim 16, wherein at least some of the programming constructs
2 are assigned respective weights representative of a relative ease or difficulty of restructuring,
3 the list being ordered based at least partially on the weights of identified programming
4 constructs.

1 19. The system of Claim 18, wherein the programming constructs are selected from
2 the group including: Terminal I/O constructs, External Flow Transfer constructs, Data I/O
3 constructs, and Computational constructs.

1 20. The system of Claim 19, wherein the Terminal I/O constructs are assigned the
2 highest weight, the Computational constructs are assigned to the lowest weight, and the
3 External Flow Transfer constructs and Data I/O constructs are assigned weights therebetween.

1 21. The system of Claim 20, further comprising the act of:
2 altering the weights of the constructs based on the actual use of the constructs.

1 22. The system of Claim 20, wherein the Terminal I/O constructs are selected from
2 the group including: EXEC CICS GDS RECEIVE, ACCEPT, DISPLAY, EXEC CICS
3 HANDLE AID, EXEC CICS RECEIVE, EXEC CICS RECEIVE MAP, EXEC CICS
4 RECEIVE MAP MAPPING DEV, EXEC CICS SEND MAP, EXEC CICS SEND MAP
5 MAPPING DEV, EXEC CICS ACQUIRE TERMINAL, EXEC CICS CREATE TERMINAL,

6 EXEC CICS DISCARD TERMINAL, EXEC CICS INQUIRE TERMINAL, and EXEC CICS
7 SET TERMINAL.

1 23. The system of Claim 20, wherein the External Control Flow Transfer constructs
2 are selected from the group including: SORT, STOP, EXEC CICS ABEND, EXEC CICS
3 DUMP, EXEC CICS CHANGE TASK, EXEC CICS CONNECT, EXEC CICS SUSPEND,
4 PERFORM, EXEC CICS ISSUE ABEND, EXEC CICS ISSUE ABORT, EXEC CICS SET
5 UOW, EXEC CICS EXTRACT TCPIP, and CALL.

1 24. The system of Claim 20, wherein the Data I/O constructs are selected from the
2 group including: EXEC CICS DELETEQ TD, OPEN, READ, EXEC CICS DELETEQ TS,
3 EXEC CICS READQ TD, EXEC CICS READQ TS, EXEC CICS WRITEQ TD, and EXEC
4 CICS WRITEQ TS, READ, WRITE, PUT, and GET.

1 25. The system of Claim 15, wherein the predetermined characteristics are selected
2 from the group including: constructs that include transactions with an associated terminal
3 identification, constructs that include any screen input or output, routines that use variables
4 that are not defined within the scope of a related compilation unit, and constructs that use a
5 common work area (CWA), compile units that are the target of CALL commands, exit
6 controls (XCTL), communication area (COMMAREA) Linkage CICS, compile units that do
7 not reference variables outside the scope of a related compilation unit, and compile units that
8 contain calls to message queuing (MQ) services.

1 26. The system of Claim 15, wherein the predetermined characteristics include at
2 least one inbound call or invocation.

1 27. The system of Claim 15, wherein the predetermined characteristics include at
2 least one leaf routine.

1 28. A computer program device, comprising:
2 a computer readable medium having a program of instructions thereon for
3 causing a computer to generate an ordered list of at least some software components in
4 a set of components, comprising:

5 logic means for identifying at least one predetermined characteristic in at least
6 some of the components; and

7 logic means for generating the ordered list based at least in part on the means
8 for identifying.

1 29. The computer program device of Claim 28, wherein the predetermined
2 characteristic includes at least one programming construct.

1 30. The computer program device of Claim 28, wherein the programming construct
2 is assigned a weight representative of a relative ease or difficulty of restructuring, the list
3 being ordered based at least partially on the weight of identified programming constructs.

1 31. The computer program device of Claim 30, wherein the programming construct
2 is selected from the group including: Terminal I/O constructs, External Flow Transfer
3 constructs, Data I/O constructs, and Computational constructs.

1 32. The computer program device of Claim 31, wherein the Terminal I/O
2 constructs are assigned the highest weight, the Computational constructs are assigned to the
3 lowest weight, and the External Flow Transfer constructs and Data I/O constructs are assigned
4 weights therebetween.

1 33. The computer program device of Claim 32, further comprising the act of:
2 altering the weights of the constructs based on the actual use of the constructs.

1 34. The computer program device of Claim 31, wherein the Terminal I/O
2 constructs are selected from the group including: EXEC CICS GDS RECEIVE, ACCEPT,
3 DISPLAY, EXEC CICS HANDLE AID, EXEC CICS RECEIVE, EXEC CICS RECEIVE
4 MAP, EXEC CICS RECEIVE MAP MAPPING DEV, EXEC CICS SEND MAP, EXEC
5 CICS SEND MAP MAPPING DEV, EXEC CICS ACQUIRE TERMINAL, EXEC CICS
6 CREATE TERMINAL, EXEC CICS DISCARD TERMINAL, EXEC CICS INQUIRE
7 TERMINAL, and EXEC CICS SET TERMINAL.

1 35. The computer program device of Claim 31, wherein the External Control Flow
2 Transfer constructs are selected from the group including: SORT, STOP, EXEC CICS
3 ABEND, EXEC CICS DUMP, EXEC CICS CHANGE TASK, EXEC CICS CONNECT,
4 EXEC CICS SUSPEND, PERFORM, EXEC CICS ISSUE ABEND, EXEC CICS ISSUE
5 ABORT, EXEC CICS SET UOW, EXEC CICS EXTRACT TCPIP, and CALL.

1 36. The computer program device of Claim 31, wherein the Data I/O constructs are
2 selected from the group including: EXEC CICS DELETEQ TD, OPEN, READ, EXEC CICS
3 DELETEQ TS, EXEC CICS READQ TD, EXEC CICS READQ TS, EXEC CICS WRITEQ
4 TD, and EXEC CICS WRITEQ TS, READ, WRITE, PUT, and GET.

1 37. The computer program device of Claim 28, wherein the predetermined
2 characteristic is selected from the group including: constructs that include transactions with
3 an associated terminal identification, constructs that include any screen input or output,
4 routines that use variables that are not defined within the scope of a related compilation unit,
5 and constructs that use a common work area (CWA), compile units that are the target of
6 CALL commands, exit controls (XCTL), communication area (COMMAREA) Linkage CICS,
7 compile units that do not reference variables outside the scope of a related compilation unit,
8 and compile units that contain calls to modified quantization (MQ) services.

1 38. The computer program device of Claim 28, wherein the predetermined
2 characteristic includes at least one inbound call or invocation.

1 39. The computer program device of Claim 28, wherein the predetermined
2 characteristic includes at least one leaf routine.

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